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**at1113exam: Expand, factor, and solve quadratics (v201)**

1. Expand the following expression into standard form.

$$(4x + 7)(3x - 2)$$

2. Expand the following expression into standard form.

$$(3x - 5)^2$$

3. Solve the equation.

$$(7x - 9)(5x - 8) = 0$$

4. Expand the following expression into standard form.

$$(8x - 9)(8x + 9)$$

5. Solve the equation.

$$7x^2 + 39x - 45 = 2x^2 + 5x + 3$$

6. Solve the equation with factoring by grouping.

$$8x^2 - 10x - 12x + 15 = 0$$

7. Factor the expression.

$$x^2 + 16x + 63$$

8. Factor the expression.

$$49x^2 - 64$$

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**at1113exam: Expand, factor, and solve quadratics (v202)**

1. Expand the following expression into standard form.

$$(7x + 9)(8x - 5)$$

2. Expand the following expression into standard form.

$$(4x + 7)^2$$

3. Expand the following expression into standard form.

$$(8x + 3)(8x - 3)$$

4. Solve the equation.

$$(5x + 4)(8x - 7) = 0$$

5. Solve the equation.

$$7x^2 - 12x + 3 = 2x^2 - 3x + 5$$

6. Solve the equation with factoring by grouping.

$$8x^2 - 12x + 10x - 15 = 0$$

7. Factor the expression.

$$x^2 - 9x + 14$$

8. Factor the expression.

$$25x^2 - 36$$

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**at1113exam: Expand, factor, and solve quadratics (v203)**

1. Expand the following expression into standard form.

$$(7x + 6)(7x - 6)$$

2. Solve the equation.

$$(9x + 5)(7x + 8) = 0$$

3. Expand the following expression into standard form.

$$(7x + 6)(9x + 2)$$

4. Expand the following expression into standard form.

$$(3x - 4)^2$$

5. Factor the expression.

$$81x^2 - 25$$

6. Factor the expression.

$$x^2 - 10x + 24$$

7. Solve the equation.

$$12x^2 + 49x + 33 = 5x^2 + 2x + 3$$

8. Solve the equation with factoring by grouping.

$$10x^2 + 12x + 15x + 18 = 0$$

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**at1113exam: Expand, factor, and solve quadratics (v204)**

1. Solve the equation.

$$(2x + 5)(7x - 9) = 0$$

2. Expand the following expression into standard form.

$$(5x + 4)^2$$

3. Expand the following expression into standard form.

$$(7x - 5)(7x + 5)$$

4. Expand the following expression into standard form.

$$(8x + 9)(3x - 4)$$

5. Factor the expression.

$$x^2 + 8x + 15$$

6. Solve the equation with factoring by grouping.

$$18x^2 + 12x + 15x + 10 = 0$$

7. Factor the expression.

$$9x^2 - 49$$

8. Solve the equation.

$$10x^2 - 67x + 70 = 3x^2 + 4x - 2$$

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**at1113exam: Expand, factor, and solve quadratics (v205)**

1. Expand the following expression into standard form.

$$(8x - 3)^2$$

2. Solve the equation.

$$(4x + 7)(6x - 5) = 0$$

3. Expand the following expression into standard form.

$$(9x + 4)(9x - 4)$$

4. Expand the following expression into standard form.

$$(7x - 4)(5x - 9)$$

5. Solve the equation with factoring by grouping.

$$6x^2 + 8x - 15x - 20 = 0$$

6. Factor the expression.

$$x^2 - 12x + 35$$

7. Solve the equation.

$$8x^2 - 12x - 4 = 5x^2 - 2x + 4$$

8. Factor the expression.

$$16x^2 - 49$$

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**at1113exam: Expand, factor, and solve quadratics (v206)**

1. Expand the following expression into standard form.

$$(3x + 2)(3x - 2)$$

2. Expand the following expression into standard form.

$$(2x + 5)(7x + 6)$$

3. Expand the following expression into standard form.

$$(5x + 3)^2$$

4. Solve the equation.

$$(3x - 8)(9x + 5) = 0$$

5. Factor the expression.

$$x^2 + 9x + 20$$

6. Factor the expression.

$$81x^2 - 16$$

7. Solve the equation.

$$9x^2 + 12x + 13 = 4x^2 - 2x + 5$$

8. Solve the equation with factoring by grouping.

$$18x^2 + 12x - 15x - 10 = 0$$

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**at1113exam: Expand, factor, and solve quadratics (v207)**

1. Expand the following expression into standard form.

$$(5x - 8)(2x - 9)$$

2. Expand the following expression into standard form.

$$(7x + 4)(7x - 4)$$

3. Expand the following expression into standard form.

$$(3x + 7)^2$$

4. Solve the equation.

$$(7x - 2)(5x + 9) = 0$$

5. Factor the expression.

$$9x^2 - 25$$

6. Solve the equation with factoring by grouping.

$$15x^2 - 18x + 10x - 12 = 0$$

7. Factor the expression.

$$x^2 - 4x - 21$$

8. Solve the equation.

$$6x^2 - 20x - 30 = 3x^2 - 4x + 5$$

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**at1113exam: Expand, factor, and solve quadratics (v208)**

1. Expand the following expression into standard form.

$$(9x + 8)^2$$

2. Expand the following expression into standard form.

$$(8x - 9)(8x + 9)$$

3. Expand the following expression into standard form.

$$(3x - 5)(9x - 8)$$

4. Solve the equation.

$$(9x - 5)(4x + 7) = 0$$

5. Factor the expression.

$$x^2 + 4x - 32$$

6. Factor the expression.

$$16x^2 - 49$$

7. Solve the equation with factoring by grouping.

$$8x^2 + 20x - 6x - 15 = 0$$

8. Solve the equation.

$$6x^2 + 28x - 14 = 3x^2 + 2x - 5$$

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**at1113exam: Expand, factor, and solve quadratics (v209)**

1. Solve the equation.

$$(7x + 6)(8x + 5) = 0$$

2. Expand the following expression into standard form.

$$(9x - 8)(9x + 8)$$

3. Expand the following expression into standard form.

$$(8x - 7)(5x + 9)$$

4. Expand the following expression into standard form.

$$(7x - 4)^2$$

5. Solve the equation with factoring by grouping.

$$18x^2 + 15x - 24x - 20 = 0$$

6. Factor the expression.

$$x^2 - 16x + 63$$

7. Factor the expression.

$$49x^2 - 81$$

8. Solve the equation.

$$9x^2 - 19x - 15 = 4x^2 - 2x - 3$$

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**at1113exam: Expand, factor, and solve quadratics (v210)**

1. Expand the following expression into standard form.

$$(6x - 7)(6x + 7)$$

2. Solve the equation.

$$(3x - 5)(4x - 9) = 0$$

3. Expand the following expression into standard form.

$$(2x - 7)^2$$

4. Expand the following expression into standard form.

$$(5x - 4)(2x - 7)$$

5. Factor the expression.

$$64x^2 - 49$$

6. Factor the expression.

$$x^2 + 10x + 16$$

7. Solve the equation.

$$12x^2 + 48x + 12 = 5x^2 - 3x - 2$$

8. Solve the equation with factoring by grouping.

$$15x^2 - 20x + 18x - 24 = 0$$

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**at1113exam: Expand, factor, and solve quadratics (v211)**

1. Expand the following expression into standard form.

$$(5x - 8)(7x + 4)$$

2. Solve the equation.

$$(6x - 7)(9x - 8) = 0$$

3. Expand the following expression into standard form.

$$(5x + 6)^2$$

4. Expand the following expression into standard form.

$$(4x - 5)(4x + 5)$$

5. Solve the equation with factoring by grouping.

$$15x^2 + 10x + 12x + 8 = 0$$

6. Factor the expression.

$$9x^2 - 64$$

7. Solve the equation.

$$10x^2 + 3x - 21 = 5x^2 + 2x - 3$$

8. Factor the expression.

$$x^2 - 2x - 8$$

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**at1113exam: Expand, factor, and solve quadratics (v212)**

1. Expand the following expression into standard form.

$$(6x - 5)(6x + 5)$$

2. Solve the equation.

$$(9x + 2)(4x + 7) = 0$$

3. Expand the following expression into standard form.

$$(9x + 5)^2$$

4. Expand the following expression into standard form.

$$(7x - 4)(2x + 3)$$

5. Solve the equation.

$$8x^2 + 27x + 59 = 5x^2 - 2x + 3$$

6. Factor the expression.

$$81x^2 - 25$$

7. Solve the equation with factoring by grouping.

$$10x^2 - 15x + 12x - 18 = 0$$

8. Factor the expression.

$$x^2 + 2x - 63$$

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**at1113exam: Expand, factor, and solve quadratics (v213)**

1. Expand the following expression into standard form.

$$(5x + 8)(5x - 8)$$

2. Solve the equation.

$$(9x + 2)(3x + 5) = 0$$

3. Expand the following expression into standard form.

$$(5x - 9)^2$$

4. Expand the following expression into standard form.

$$(9x - 4)(8x - 7)$$

5. Solve the equation with factoring by grouping.

$$20x^2 - 15x + 24x - 18 = 0$$

6. Factor the expression.

$$9x^2 - 16$$

7. Solve the equation.

$$8x^2 + 40x + 43 = 3x^2 + 2x - 5$$

8. Factor the expression.

$$x^2 + 11x + 28$$

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**at1113exam: Expand, factor, and solve quadratics (v214)**

1. Expand the following expression into standard form.

$$(7x + 9)^2$$

2. Expand the following expression into standard form.

$$(5x + 9)(5x - 9)$$

3. Expand the following expression into standard form.

$$(4x + 5)(6x - 7)$$

4. Solve the equation.

$$(8x + 7)(9x + 2) = 0$$

5. Solve the equation.

$$12x^2 - 8x - 19 = 5x^2 - 2x - 3$$

6. Solve the equation with factoring by grouping.

$$15x^2 - 20x + 18x - 24 = 0$$

7. Factor the expression.

$$36x^2 - 49$$

8. Factor the expression.

$$x^2 - 9x + 20$$

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**at1113exam: Expand, factor, and solve quadratics (v215)**

1. Expand the following expression into standard form.

$$(5x + 6)(2x + 9)$$

2. Expand the following expression into standard form.

$$(6x - 7)(6x + 7)$$

3. Expand the following expression into standard form.

$$(6x - 7)^2$$

4. Solve the equation.

$$(7x + 8)(2x + 3) = 0$$

5. Solve the equation.

$$7x^2 + 28x + 21 = 4x^2 + 2x + 5$$

6. Factor the expression.

$$81x^2 - 64$$

7. Solve the equation with factoring by grouping.

$$15x^2 + 18x - 10x - 12 = 0$$

8. Factor the expression.

$$x^2 - 7x + 10$$

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**at1113exam: Expand, factor, and solve quadratics (v216)**

1. Expand the following expression into standard form.

$$(3x + 5)^2$$

2. Solve the equation.

$$(5x + 8)(4x + 3) = 0$$

3. Expand the following expression into standard form.

$$(9x + 4)(5x + 3)$$

4. Expand the following expression into standard form.

$$(4x - 3)(4x + 3)$$

5. Factor the expression.

$$9x^2 - 49$$

6. Solve the equation with factoring by grouping.

$$10x^2 - 8x + 15x - 12 = 0$$

7. Factor the expression.

$$x^2 - x - 56$$

8. Solve the equation.

$$10x^2 - 60x + 67 = 3x^2 - 2x + 4$$

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**at1113exam: Expand, factor, and solve quadratics (v217)**

1. Solve the equation.

$$(9x + 2)(5x - 3) = 0$$

2. Expand the following expression into standard form.

$$(9x - 5)(9x + 5)$$

3. Expand the following expression into standard form.

$$(5x + 7)(9x - 8)$$

4. Expand the following expression into standard form.

$$(8x + 5)^2$$

5. Factor the expression.

$$49x^2 - 64$$

6. Factor the expression.

$$x^2 - x - 56$$

7. Solve the equation with factoring by grouping.

$$12x^2 - 8x + 15x - 10 = 0$$

8. Solve the equation.

$$7x^2 - 36x + 3 = 2x^2 - 5x - 3$$

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**at1113exam: Expand, factor, and solve quadratics (v218)**

1. Expand the following expression into standard form.

$$(4x - 3)^2$$

2. Expand the following expression into standard form.

$$(9x - 7)(9x + 7)$$

3. Expand the following expression into standard form.

$$(4x - 7)(5x + 9)$$

4. Solve the equation.

$$(8x + 9)(5x - 4) = 0$$

5. Solve the equation with factoring by grouping.

$$20x^2 - 15x - 8x + 6 = 0$$

6. Factor the expression.

$$64x^2 - 9$$

7. Factor the expression.

$$x^2 + 3x - 28$$

8. Solve the equation.

$$6x^2 + 13x + 14 = 4x^2 + 2x + 5$$

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**at1113exam: Expand, factor, and solve quadratics (v219)**

1. Expand the following expression into standard form.

$$(9x - 2)(9x + 2)$$

2. Solve the equation.

$$(3x - 4)(5x - 2) = 0$$

3. Expand the following expression into standard form.

$$(9x + 7)(4x + 3)$$

4. Expand the following expression into standard form.

$$(8x - 9)^2$$

5. Solve the equation.

$$8x^2 - 23x + 12 = 3x^2 + 4x + 2$$

6. Factor the expression.

$$x^2 + x - 6$$

7. Solve the equation with factoring by grouping.

$$18x^2 + 15x + 12x + 10 = 0$$

8. Factor the expression.

$$49x^2 - 9$$

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**at1113exam: Expand, factor, and solve quadratics (v220)**

1. Solve the equation.

$$(5x - 6)(4x + 3) = 0$$

2. Expand the following expression into standard form.

$$(5x + 7)(3x + 4)$$

3. Expand the following expression into standard form.

$$(5x + 9)(5x - 9)$$

4. Expand the following expression into standard form.

$$(7x - 5)^2$$

5. Factor the expression.

$$25x^2 - 9$$

6. Solve the equation with factoring by grouping.

$$10x^2 + 8x - 15x - 12 = 0$$

7. Solve the equation.

$$5x^2 + 4x - 10 = 2x^2 + 5x + 4$$

8. Factor the expression.

$$x^2 - 2x - 63$$